

1. A method for synchronizing databases among a server computer having a master database therein, and a client computer in communication with the server computer, wherein the client computer having a replica database of the master database therein, comprising the steps of:

5 establishing communication between a server computer having a master database therein and a client computer;

recognizing a replication request by said client computer for a piece of data within said master database from said server computer;

10 initiating a registration authorization process of said client computer wherein said client computer is provided with means for accessing multicast updates of said data; and

accessing a multicast of updated data using said accessing means.

2. The method of claim 1, which is further includes the steps of determining a missed multicast of updated data by said client computer and initiating a unicast of said missed updated data.

15 3. The method of claim 1, which is further characterized as:

establishing a connection between said server computer and a plurality of client computers;

recognizing a replication request by each said client computer for a piece of data within said master database from said server computer;

20 initiating a registration authorization process of said client computers wherein said client computers are provided with means for accessing multicast updates of said data; and

accessing a multicast of updated data using said accessing means.

4. The method of claim 3, wherein said step of recognizing replication requests are

for different data for each said client computer, and said registration authorization process includes providing one of identical and unique means for accessing multicast updated data.

5. The method of claim 1, which further includes the step of determining whether to receive said update of said data.

6. The method of claim 5, wherein the step of determining is accomplished by maintaining in said client computer information relating to prior updates of said data by said client computer.

7. The method of claim 5, wherein the step of determining is accomplished by maintaining in said server computer information relating prior updates of said data by said client computer.

8. The method of claim 1, which further includes the step of determining the rate at which to multicast said data between said server computer and said client computer.

9. A system for synchronizing databases among a server computer having a master database therein, and a client computer in communication with the server computer, wherein the client computer having a replica database of the master database therein, comprising:

a server computer having means for storing a master database therein;

a client computer having means for storing a replica of said master database;

means for communicably connecting said server computer to said client computer;

means for recognizing a replication request by said client computer for a piece of data within said master database of said server computer;

means for initiating a registration authorization process of said client computer and providing said client computer with means for accessing multicast updates of said data; and

means for accessing a multicast of updated data using said accessing means.

5 10. The system of claim 9, which further includes means for determining a missed multicast of prior update of said data by said client computer and means for initiating a unicast of said missed prior update of said data.

11. The system of claim 9, which is further characterized to include:

a plurality of said client computers;

10 means for establishing a connection between said server computer and said plurality of client computers;

means for recognizing a replication request by each said client computer for a piece of data within said master database from said server computer; and

means for initiating a registration authorization process of said client computers

15 wherein said client computers are provided with means for accessing multicast updates of said data; and

means for accessing a multicast of updated data using said accessing means.

12. The system of claim 11, wherein said datas are different for each said client computer, and said means for accessing multicast updates of each said different data are
20 different for each client computer.

13. The system of claim 9, which further includes means for determining whether to receive said update of said data.

14. The system of claim 13, wherein said determining means is accomplished by maintaining in said client computer information relating to prior updates of said

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data by said client computer.

15. The system of claim 13, wherein said determining means is accomplished by maintaining in said server computer information relating prior updates of said data by said client computer.

5 16. The system of claim 9, wherein said file server computer has an operating system, a first memory, a permanent storage memory and a processor an object server software which includes an object synchronization server, an object update hook, an object update detector, an object update multicator, a multicast communication protocol, and a unicast communication protocol and an object database, and said
10 client computer has an operating system, a first memory and a processor, an object client computer has a client object requester software which includes an object synchronization client and a multication client, a multicast communication protocol, and a unicast communication protocol, and an object database replica.

15 17. The system of claim 16, wherein said object server software includes means for encrypting said data and transmitting an encryption key sequence with said data and said client object requester software 32 will include said accessing means which includes means for verifying said encryption key and de-encrypting said data.

20 18. The system of claim 9, wherein said client computer is further characterized to be a server computer.

19. The system of claim 9, which further includes means for determining the rate at which to multicast said data.